



U.S. ENVIRONMENTAL PROTECTION AGENCY  
 Office of Pesticide Programs  
 Biopesticides and Pollution Prevention Division (7511P)  
 1200 Pennsylvania Ave., N.W.  
 Washington, D.C. 20460

EPA Reg. Number:

84059-26

Date of Issuance:

11/16/2016

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

MBI-601 EP

Name and Address of Registrant (include ZIP Code):

Marrone Bio Innovations, Inc.  
 1540 Drew Avenue  
 Davis, CA 95618

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product, always refer to the above EPA Registration Number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA or the Act).

Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency (EPA). In order to protect health and the environment, the Administrator, on his or her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under the Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration or registration review of your product when the EPA requires all registrants of similar products to submit such data.

Signature of Approving Official:

ShaRon Carlisle, Acting Chief  
 Microbial Pesticides Branch  
 Biopesticides and Pollution Prevention Division (7511P)  
 Office of Pesticide Programs

Date:

11/16/2016

2. Submit corrosion characteristics (Guideline 830.6320) data as this data requirement is not satisfied. A one-year study is required to satisfy this data requirement. You have 18 months from the date of this registration to provide these data to the EPA.
3. Submit confirmatory analysis of samples (Guideline 885.1400) data. You have 18 months from the date of this registration to provide these data to the EPA.
4. Make the following labeling change before you release this product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 84059-26."
5. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

- Basic CSF dated 09/09/2015

Any CSFs other than those listed above are superseded.

If you have any questions, please contact Michael Glikes by phone at (703) 305-6231 or via email at [glikes.michael@epa.gov](mailto:glikes.michael@epa.gov).

Sincerely,



ShaRon Carlisle, Acting Chief  
Microbial Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511P)  
Office of Pesticide Programs

Enclosure

# MBI-601 EP

Alternate Brand Names: Chieftain, Patron

<b>MASTER LABEL, containing:</b>
<b>Sublabel A: Agricultural Crop Use</b>
<b>Sublabel B: Home &amp; Garden Use</b>

EPA Reg. No.: (pending as File Symbol 84059-XX)

**Manufactured by:** Marrone Bio Innovations, Inc.  
1540 Drew Ave.  
Davis, CA 95618 USA  
1-877-664-4476; [www.marronebioinnovations.com](http://www.marronebioinnovations.com); info@marronebio.com

**ACCEPTED**

11/16/2016

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. 84059-26

# Sublabel A: Agricultural Crop Use

## MBI-601 EP

For control of nematodes and soil-borne diseases in agricultural soils.  
(Biological) (Microbial) (Nematicide) (Bionematicide) (Fungicide) (Biofungicide)  
(Granular) soil treatment.



(Can Be Used in Organic Production) (For Organic Production)(OMRI Placeholder)

**Active Ingredient:**

*Muscodor albus* strain SA-13 and spent and unspent fermentation media\* 100%

\*Contains a minimum of  $1.0 \times 10^3$  cfu/g.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

FIRST AID	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

**EPA Reg. No.:** (pending as File Symbol 84059-XX)

**EPA Est. No.:** XXXXX-XX-XXX

**Net Contents:** XX

**(Batch)(Lot) No:** XXXX

**Manufactured by:** Marrone Bio Innovations, Inc.  
1540 Drew Ave.  
Davis, CA 95618 USA  
1-877-664-4476; [www.marronebioinnovations.com](http://www.marronebioinnovations.com); info@marronebio.com

Marrone Bio Innovations name and logo are registered trademarks of Marrone Bio Innovations, Inc.

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION.** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear:

- long-sleeved shirt and long pants,
- waterproof gloves,
- shoes plus socks,
- protective eyewear,
- NIOSH approved particulate respirator with any N, R or P filter with NIOSH approval number prefix TC-84A; or a NIOSH approved powered air purifying respirator with a HE filter with NIOSH approval number prefix TC-21C (Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.).

Follow manufacturer's instructions for cleaning and maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROLS:** When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, including a spill or equipment breakdown.

**USER SAFETY RECOMMENDATIONS:** Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when disposing of equipment washwaters or rinsate. This pesticide is toxic to nontarget insects inhabiting treated soil.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil or water), is:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear
- NIOSH approved particulate respirator with any N, R or P filter with NIOSH approval number prefix TC-84A; or a NIOSH approved powered air purifying respirator with a HE filter with NIOSH approval number prefix TC-21C (Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.).

**EXCEPTION:** If the product is soil incorporated or soil injected, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

### Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are **not** within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried or dust has settled.

### PRODUCT INFORMATION

MBI-601 EP controls or suppresses soil-borne plant diseases and plant parasitic nematodes and insects in horticultural and agricultural soils. The active ingredient, *Muscodor albus* strain SA-13 and spent and unspent fermentation media\*, which is made by inoculating sterile grain with *Muscodor albus* strain SA-13, when properly activated, produces volatile organic compounds that inhibit the growth of or kill target pests. MBI-601 EP is incorporated into the soil with discs or other similar equipment before planting, or applied in furrow or post planting along the planning rows, and watered in to activate the volatile compounds.

### APPLICATION AND MIXING INSTRUCTIONS

Incorporate MBI-601 EP into soil as a pre-plant, at planting, or post-planting in-furrow soil treatment. Do not mix with water prior to application as the microbe will activate and become degraded when wetted. At the broadcast rate, incorporate the product into the top 6-inches of soil by disking according to the chart below. If applied in furrows, apply at rates based on row spacing. See the chart below for typical 22" row spacing. Treatment area must be watered immediately after application. If rain is not expected following planting and soil is dry, water until the top one inch of soil has a moisture content of 20-50%. Use higher application rates for heavy clay soils or soils with high disease pressure. Use lower rates in loose, sandy soils or soils with low disease pressure.

<b>Application Rates for 22" row spacing</b>			
<b>Heavy soil or high disease pressure</b>		<b>Loose, sandy soil or low disease pressure</b>	
Pounds/Acre	Pounds/1000 feet of row	Pounds/Acre	Pounds/1000 feet of row
500-1000	21-42	125-500	5-21

### APPLICATION RATES FOR SELECTED CROPS

Apply MBI-601 EP to the soils of the listed agricultural crops at the following rates based on row spacing

#### Crop Group

##### I. Vegetable and Cole Crops

Crops	Target pests	Product Use Rate per Application	Application Instructions
Artichokes Arugula Asparagus Beans- including garden, dried, succulent, adzuki, fava, field, garbanzo, pinto, kidney, lentil, lima, moonbeam, navy, runner, snap, teary, wax, yard long Beets-including garden Bok Choy Broccoli Broccoli Raab Brussels Sprouts Cabbage Cardoni Carrots Cassava Cauliflower Cavalo Celeric Celery Chayote root	<i>Belonolaimus</i> spp. (sting nematodes)  <i>Criconemoides</i> spp., <i>Criconemella</i> spp. and related genera (ring nematodes)  <i>Heliothylenchus</i> spp. (spiral nematodes)  <i>Heterodera</i> spp. and <i>Globodera</i> spp. (cyst nematodes)  <i>Hoplolaimus</i> spp. (lance nematodes)  <i>Meloidogyne</i> spp. (root knot nematodes)  <i>Pratylenchus</i> spp. (lesion nematodes)	125-1000 pounds per acre	

Crops	Target pests	Product Use Rate per Application	Application Instructions
Chervil Chick peas Chicory China greens Chinese artichoke Chinese broccoli Chinese cabbage (Napa) Chinese mustard cabbage (Gai Choy) Collards Corn salad Cress Cucumber Cucurbits Dandelion dock Dry bulb onions Edible burdock Edible chrysanthemum Edible gourds Eggplant Escarole Endive Garlic Ginger Ginseng Green onions Greens: Beets, China, Dandelion, Mustard, Turnip, Rape Ground cherry Horseradish Jerusalem artichoke Kale Kohlrabi Leeks Lentils Lettuce: Head, Leaf, Romaine Lupine Malanga Melons: Cantaloupe, Crenshaw, Honeydew, Muskmelon, Watermelon, etc. Mizuna Mustard spinach Napa Okra	<i>Rotylenchus</i> spp. (lance or reniform nematodes)  <i>Botrytis cinerea</i> (Botrytis fruit rot or blight)  <i>Fusarium oxysporum</i> (Fusarium root rot)  <i>Macrophomina</i> <i>phaseolina</i> (Charcoal rot)  <i>Pythium</i> spp. (Damping off)  <i>Sclerotinia minor</i> (Sclerotinia blight)  <i>Sclerotinia rolfsii</i> (Southern blight)  <i>Verticillium dahliae</i> (Verticillium wilt)		

Crops	Target pests	Product Use Rate per Application	Application Instructions
Olives Onions Parsley Parsnips Peas-including garden, dried, succulent, blackeyed, chickpea, cowpea, crowder, edible-pod, English, field, green, pigeon, snow, sugar snap, Pepino Peppers Potatoes Pumpkins Purslane Radicchio Radishes Rhubarb Rutabaga Salsify Shallots Skirret Soybean foliage Soybean Spinach Squash Sugar beets Sweet potatoes Swiss chard Tomatillo Tomatoes Turmeric Turnips Turnip-rooted chervil Turnip-rooted parsley Watercress Yams			

**II. Herbs, spices and mints**

Crops	Target pests	Product Use Rate per Application	Application Instructions
Angelica Balm Basil Borage Burnet Catnip	<i>Belonolaimus</i> spp. (sting nematodes)  <i>Criconemoides</i> spp., <i>Criconemella</i> spp. and related genera	125- 1000 pounds per acre	

Crops	Target pests	Product Use Rate per Application	Application Instructions
Chamomile	(ring nematodes)		
Chervil			
Chives	<i>Heliothylenchus</i> spp.		
Cilantro	(spiral nematodes)		
Clary			
Coriander	<i>Heterodera</i> spp. and		
Costmary	<i>Globodera</i> spp.		
Curry	(cyst nematodes)		
Dill			
Dillweed	<i>Hoplolaimus</i> spp.		
Fennel	(lance nematodes)		
Horehound			
Hyssop	<i>Meloidogyne</i> spp.		
Lavender	(root knot nematodes)		
Lemongrass			
Lovage	<i>Pratylenchus</i> spp.		
Marjoram	(lesion nematodes)		
Mint			
Nasturtium	<i>Rotylenchus</i> spp.		
Oregano	(lance or reniform nematodes)		
Parsley-including dried			
Peppermint			
Rosemary	<i>Botrytis cinerea</i>		
Sage	(Botrytis fruit rot or blight)		
Savory- summer and winter			
Spearmint	<i>Fusarium oxysporum</i>		
Sweet bay	(Fusarium root rot)		
Tansy			
Tarragon	<i>Macrophomina</i>		
Thyme	<i>phaseolina</i>		
Wintergreen	(Charcoal rot)		
Woodruff			
Wormwood	<i>Pythium</i> spp.		
	(Damping off)		
	<i>Sclerotinia minor</i>		
	(Sclerotinia blight)		
	<i>Sclerotinia rolfsii</i>		
	(Southern blight)		
	<i>Verticillium dahliae</i>		
	(Verticillium wilt)		

### III. Pasture and Hay Crops

Crops	Target pests	Product Use Rate per Application	Application Instructions
Alfalfa: hay and seed Hay and other forage crops Pasture: grasses and hay Silage	<p><i>Belonolaimus</i> spp. (sting nematodes)</p> <p><i>Criconemoides</i> spp., <i>Criconemella</i> spp. and related genera (ring nematodes)</p> <p><i>Heliothylenchus</i> spp. (spiral nematodes)</p> <p><i>Heterodera</i> spp. and <i>Globodera</i> spp. (cyst nematodes)</p> <p><i>Hoplolaimus</i> spp. (lance nematodes)</p> <p><i>Meloidogyne</i> spp. (root knot nematodes)</p> <p><i>Pratylenchus</i> spp. (lesion nematodes)</p> <p><i>Rotylenchus</i> spp. (lance or reniform nematodes)</p> <p><i>Botrytis cinerea</i> (Botrytis fruit rot or blight)</p> <p><i>Fusarium oxysporum</i> (Fusarium root rot)</p> <p><i>Macrophomina phaseolina</i> (Charcoal rot)</p> <p><i>Pythium</i> spp. (Damping off)</p> <p><i>Sclerotinia minor</i> (Sclerotinia blight)</p> <p><i>Sclerotinia rolfsii</i> (Southern blight)</p>	125-1000 pounds per acre	

Crops	Target pests	Product Use Rate per Application	Application Instructions
	<i>Verticillium dahliae</i> (Verticillium wilt)		

#### IV. Fruit, Nut and Vine Crops

Crops	Target pests	Product Use Rate per Application	Application Instructions
<b>Pome and Stone Fruit Trees:</b> Apples Apricots Crabapple Cherries Figs Loquat Mayhaw Nectarines Peaches Pears Plums Prunes Quince	<i>Belonolaimus</i> spp. (sting nematodes)  <i>Criconemoides</i> spp., <i>Criconemella</i> spp. and related genera (ring nematodes)  <i>Heliothylenchus</i> spp. (spiral nematodes)  <i>Heterodera</i> spp. and <i>Globodera</i> spp. (cyst nematodes)  <i>Hoplolaimus</i> spp. (lance nematodes)  <i>Meloidogyne</i> spp. (root knot nematodes)  <i>Pratylenchus</i> spp. (lesion nematodes)  <i>Rotylenchus</i> spp. (lance or reniform nematodes)	125-1000 pounds per acre	Mix into planting soil
<b>Nut Trees:</b> Almonds Cashew Chestnuts Filberts (Hazelnuts)	<i>Botrytis cinerea</i> (Botrytis fruit rot or blight)		

Crops	Target pests	Product Use Rate per Application	Application Instructions
Macadamia Nut Pecans Pistachios Walnuts	<i>Fusarium oxysporum</i> (Fusarium root rot)  <i>Macrophomina phaseolina</i> (Charcoal rot)  <i>Pythium</i> spp. (Damping off)  <i>Sclerotinia minor</i> (Sclerotinia blight)  <i>Sclerotinia rolfsii</i> (Southern blight)  <i>Verticillium dahliae</i> (Verticillium wilt)		
<b>Tree Fruits:</b> Acerola Atemoya Biriba Black sapote Canistel Cherimoya Custard apple Feijoa Guava Llama Jaboticaba Kiwi Longan Lychee Mamey sapote Mango Papaya Passionfruit Pulasan Rambutan Sapodilla Soursop Spanish lime Star apple Starfruit			

Crops	Target pests	Product Use Rate per Application	Application Instructions
Sugar apple Ti palm Wax jambu (wax apple) White sapote			
<b>Citrus:</b> Grapefruit Lemons Limes Oranges Tangerines			
<b>Small Fruit and Berries:</b> Blackberries Blueberries Boysenberries Cranberries Currants Elderberry Gooseberry Huckleberry Juneberry Ligonberry Loganberries Raspberries-black, red, cultivars and hybrids Salal Strawberries			
Grapes			
<b>Tropical and Other Fruit:</b> Avocados			
Bananas			
Kiwi			
Persimmons Pomegranate			
Pineapple			
<b>Tropical/ Sub-tropical fruits:</b> Avocado Guava Lychee Sugar apple			

#### V. Field Crops

Crops	Target pests	Product Use Rate per Application	Application Instructions
Canola/Rape Seed Evening Primrose Meadow Foam	<i>Belonolaimus</i> spp.	125-1000 pounds per acre	

Crops	Target pests	Product Use Rate per Application	Application Instructions
	<p>(sting nematodes)</p> <p><i>Criconemoides</i> spp., <i>Criconemella</i> spp. and related genera (ring nematodes)</p> <p><i>Heliothylenchus</i> spp. (spiral nematodes)</p> <p><i>Heterodera</i> spp. and <i>Globodera</i> spp. (cyst nematodes)</p> <p><i>Hoplolaimus</i> spp. (lance nematodes)</p> <p><i>Meloidogyne</i> spp. (root knot nematodes)</p> <p><i>Pratylenchus</i> spp. (lesion nematodes)</p> <p><i>Rotylenchus</i> spp. (lance or reniform nematodes)</p> <p><i>Botrytis cinerea</i> (Botrytis fruit rot or blight)</p> <p><i>Fusarium oxysporum</i></p>		

Crops	Target pests	Product Use Rate per Application	Application Instructions
	(Fusarium root rot)  <i>Macrophomina phaseolina</i> (Charcoal rot)  <i>Pythium</i> spp. (Damping off)  <i>Sclerotinia minor</i> (Sclerotinia blight)  <i>Sclerotinia rolfii</i> (Southern blight)  <i>Verticillium dahliae</i> (Verticillium wilt)		
Corn: Field, Sweet, Popcorn, Seed			
Cotton			
Hops			
Jojoba			
Peanuts			
Rice			
Safflower			
<b>Small grains:</b> Barley Buckwheat Grain amaranth Millet Milo Oats Pearl Proso millet Rye Triticale Wheat			
Sorghum			
Soybeans			
Sunflowers- oil and seed			
Tobacco			
Coffee			

## VI. Commercial Flowers and Ornamental Plants

Crops	Target pests	Product Use Rate per Application	Application Instructions
Bedding Plants Flowers: greenhouse and field Greenhouse ornamentals Greenhouse vegetables Container stock	<i>Belonolaimus</i> spp. (sting nematodes)  <i>Criconemoides</i> spp., <i>Criconemella</i> spp. and related genera (ring nematodes)  <i>Heliothylenchus</i> spp. (spiral nematodes)  <i>Heterodera</i> spp. and <i>Globodera</i> spp. (cyst nematodes)  <i>Hoplolaimus</i> spp. (lance nematodes)  <i>Meloidogyne</i> spp. (root knot nematodes)  <i>Pratylenchus</i> spp. (lesion nematodes)  <i>Rotylenchus</i> spp. (lance or reniform nematodes) <i>Botrytis cinerea</i> (Botrytis fruit rot or blight)  <i>Fusarium oxysporum</i> (Fusarium root rot)  <i>Macrophomina phaseolina</i> (Charcoal rot)  <i>Pythium</i> spp. (Damping off)	125-1000 pounds per acre	

Crops	Target pests	Product Use Rate per Application	Application Instructions
	<i>Sclerotinia minor</i> (Sclerotinia blight)  <i>Sclerotinia rolfsii</i> (Southern blight)  <i>Verticillium dahliae</i> (Verticillium wilt)		

**VII. Forest, Shade Tree and Nursery Stock**

Crops	Target pests	Product Use Rate per Application	Application Instructions
Deciduous Forest Shade Trees Nursery Trees Ornamental Trees Confers-including Christmas trees	<i>Belonolaimus</i> spp. (sting nematodes)  <i>Criconemoides</i> spp., <i>Criconemella</i> spp. and related genera (ring nematodes)  <i>Heliothylenchus</i> spp. (spiral nematodes)  <i>Heterodera</i> spp. and <i>Globodera</i> spp. (cyst nematodes)  <i>Hoplolaimus</i> spp. (lance nematodes)  <i>Meloidogyne</i> spp. (root knot nematodes)  <i>Pratylenchus</i> spp.	125-1000 pounds per acre	

Crops	Target pests	Product Use Rate per Application	Application Instructions
	(lesion nematodes)  <i>Rotylenchus</i> spp. (lance or reniform nematodes)  <i>Botrytis cinerea</i> (Botrytis fruit rot or blight)  <i>Fusarium oxysporum</i> (Fusarium root rot)  <i>Macrophomina phaseolina</i> (Charcoal rot)  <i>Pythium</i> spp. (Damping off)  <i>Sclerotinia minor</i> (Sclerotinia blight)  <i>Sclerotinia rolfisii</i> (Southern blight)  <i>Verticillium dahliae</i> (Verticillium wilt)		

**VIII. Turf**

Crops	Target pests	Product Use Rate per Application	Application Instructions
Turf- including turf grown for seed	<i>Belonolaimus</i> spp. (sting nematodes)  <i>Criconemoides</i> spp.,	250- 1000 pounds per acre	Apply into soil as a pre-plant soil treatment

Crops	Target pests	Product Use Rate per Application	Application Instructions
	<p><i>Criconemella</i> spp. and related genera (ring nematodes)</p> <p><i>Heliothylenchus</i> spp. (spiral nematodes)</p> <p><i>Heterodera</i> spp. and <i>Globodera</i> spp. (cyst nematodes)</p> <p><i>Hoplolaimus</i> spp. (lance nematodes)</p> <p><i>Meloidogyne</i> spp. (root knot nematodes)</p> <p><i>Pratylenchus</i> spp. (lesion nematodes)</p> <p><i>Rotylenchus</i> spp. (lance or reniform nematodes)</p> <p><i>Botrytis cinerea</i> (Botrytis fruit rot or blight)</p> <p><i>Fusarium oxysporum</i> (Fusarium root rot)</p> <p><i>Macrophomina phaseolina</i></p>		

Crops	Target pests	Product Use Rate per Application	Application Instructions
	(Charcoal rot)  <i>Pythium</i> spp. (Damping off)  <i>Sclerotinia minor</i> (Sclerotinia blight)  <i>Sclerotinia rolfsii</i> (Southern blight)  <i>Verticillium dahliae</i> (Verticillium wilt)		

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store in a cool, dry place out of direct sunlight and away from heat sources. Keep container closed when not in use. Store for up to one year after the date of purchase.

**Pesticide Disposal:** To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry). Pesticide wastes may be toxic. Improper disposal of unused pesticide, washwater or rinse water is a violation of federal law.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container.

Completely empty bag into application equipment, then offer for recycling if available or dispose of empty bag in a sanitary landfill or if allowed by state and local authorities, by burning. If burned, stay out of smoke. If burned, stay out of smoke.

ACRC Logo Placeholder

Marrone Bio Innovations is a member of the Ag Container Recycling Council. 223 South Main Street, Lexington, VA 24450 Visit <http://www.acrecycle.org/Contact> for information on how to arrange pick-up of this empty pesticide container.

### MARRONE BIO INNOVATIONS WARRANTY

To the extent consistent with applicable law, the seller makes no warranty, expressed or implied, of merchantability, fitness or otherwise concerning use of this product. The user assumes all risks of use, storage or handling that are not in accordance with the accompanying directions.

## Sublabel B: Home & Garden Use

# MBI-601 EP

For control of nematodes and soil-borne diseases in home garden soils.  
(Biological) (Microbial) (Nematicide) (Bionematicide) (Fungicide) (Biofungicide)  
(Granular) soil treatment.



(Can Be Used in Organic Gardening) (For Organic Gardening)(OMRI Placeholder)

### Active Ingredient:

*Muscodor albus* strain SA-13 and spent and unspent fermentation media 100%

\*Contains a minimum of  $1.0 \times 10^3$  cfu/g

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

FIRST AID	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

**EPA Reg. No.:** (pending as File Symbol 84059-XX)

**EPA Est. No.:** XXXXX-XX-XXX

**Net Contents:** XX

**(Batch)(Lot) No:** XXXX

**Manufactured by:** Marrone Bio Innovations, Inc.  
1540 Drew Ave.  
Davis, CA 95618 USA  
1-877-664-4476; [www.marronebioinnovations.com](http://www.marronebioinnovations.com); [info@marronebio.com](mailto:info@marronebio.com)

Marrone Bio Innovations name and logo are registered trademarks of Marrone Bio Innovations, Inc.

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION.** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

**ENVIRONMENTAL HAZARDS**

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. This pesticide is toxic to non-target insects inhabiting treated soil.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**HOW IT WORKS**

MBI-601 EP controls or suppresses plant parasitic nematodes and soil-borne plant diseases in home garden soils. The active ingredient, *Muscodor albus* strain SA-13 and spent and unspent fermentation media\*, which is made by inoculating sterile grain with *Muscodor albus* strain SA-13, when properly activated produces gases that stops the growth or kills target pests. MBI-601 EP is incorporated into the soil with a shovel or a rotor-tiller, in about 6 inch depth and watered in one inch top layer in to activate the microbe to produce the gases for about 5-7 days.

Target pests affected are:

*Belonolaimus* spp. (sting nematodes)  
*Criconemoides* spp., *Criconemella* spp. and related genera (ring nematodes)  
*Heliothylenchus* spp. (spiral nematodes)  
*Heterodera* spp. and *Globodera* spp. (cyst nematodes)  
*Hoplolaimus* spp. (lance nematodes)  
*Meloidogyne* spp. (root knot nematodes)  
*Pratylenchus* spp. (lesion nematodes)  
*Rotylenchus* spp. (lance or reniform nematodes)  
*Botrytis cinerea* (Botrytis fruit rot or blight)  
*Fusarium oxysporum* (Fusarium root rot)  
*Macrophomina phaseolina* (Charcoal rot)  
*Pythium* spp. (Damping off)  
*Sclerotinia minor* (Sclerotinia blight)  
*Sclerotinia rolfii* (Southern blight)  
*Verticillium dahliae* (Verticillium wilt)

**HOW TO APPLY**

Mix MBI-601 EP into the soil at a rate of 0.6 to 1.2 pounds per cubic feet. Incorporate the product into the top 6-inches of soil with a shovel or rotor tiller and water in one inch top soil. Keep moisture at about 20-50% for 5-7 days before planting.

## WHERE TO APPLY

Apply on all types of vegetables, fruits and flowering plants, including:

Annuals  
Perennials  
Bedding Plants  
Ground Covers  
Potted Flowers  
Flowering Plants  
Foliage Plants  
Tomatoes  
Peppers  
Includes all types  
and hybrids of:  
Cucumber  
Pumpkin  
Watermelon  
Muskmelon:  
Cantaloupe  
Casaba  
Crenshaw melon  
Golden pershaw  
melon  
Honeydew  
melon  
Honey balls  
Mango melon  
Persian melon  
Pineapple melon  
Santa Claus  
melon  
Snake melon  
Summer Squash:  
Crookneck squash  
Scallop squash  
Straightneck  
squash  
Vegetable  
marrow  
Zucchini  
Winter Squash:  
Acorn squash  
Butternut squash  
Calabaza  
Hubbard squash  
Spaghetti squash  
Arugula  
Beet  
Celery

Cress  
Endive  
Head Lettuce  
Leaf Lettuce  
Radicchio  
Rhubarb  
Spinach  
Swiss Chard  
Watercress  
Garlic  
Onions  
Broccoli  
Broccoli Rabe  
Brussels Sprouts  
Cabbage  
Chinese Broccoli  
Chinese Cabbage  
(Bok  
Choy)  
Chinese Cabbage  
(Napa)  
Chinese Mustard  
Cabbage (Gai  
Choy)  
Cauliflower  
Collards  
Kale  
Mustard Greens  
Mustard Spinach  
Rape Greens  
Turnip

### **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**Pesticide Storage:** Store in a cool, dry place out of direct sunlight and away from heat sources. Keep container closed when not in use. Store for up to one year after the date of purchase.

**Pesticide Disposal and Container Handling:** Nonrefillable container. Do not reuse or refill this container. **If empty:** Place in trash or offer for recycling if available.

**If partially filled:** Call your local solid waste agency or (800) 858-7378 (National Pesticide Information Center) for disposal instructions. Never place unused product down any indoor or outdoor drain.

### **MARRONE BIO INNOVATIONS WARRANTY**

To the extent consistent with applicable law, the seller makes no warranty, expressed or implied, of merchantability, fitness or otherwise concerning use of this product. The user assumes all risks of use, storage or handling that are not in accordance with the accompanying directions.